STRATEGY RESEARCH PROJECT

THE MILITARY HEALTH SERVICES SYSTEM TRANSITION TO MANAGED CARE: PROGRESS AND PITFALLS

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ABSTRACT

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Under TriCare, the Military Health Services System (MHSS) is transforming to a managed care organization. It must develop regional networks with civilian contractors, with the goal of providing uniform access to quality, cost effective health care. Capitation budgeting requires complete reorientation from traditional MHSS business practices. This paper analyzes MHSS progress as a managed care organization and rates it on a "green-amber-red" basis. It concludes that the MHSS is largely "green" in the basic characteristics of a managed care organization, except for insufficient emphasis on primary care. The MHSS is mostly "amber to green" in characteristics linked with success in managed care. In characteristics identified with managed care excellence, it is "amber to red." The paper closes with recommendations to improve MHSS competitiveness in managed care.

LIST OF ILLUSTRATIONS

Introduction

Under TriCare, the Military Health Services System (MHSS) is transforming to a managed care organization. The MHSS is developing regional networks with civilian contractors, with the goal of providing uniform access to quality, cost effective health care. Capitated budgeting is requiring complete MHSS reorientation, from a system that rewards workload, to one which rewards efficiency.[1] Success or failure of TriCare will likely determine whether or not the peacetime MHSS survives.[2,3]

In this paper I briefly review health care cost trends, and recent military achievements in cost reduction. I define managed care, and compare the MHSS against basic characteristics of managed care. I then analyze how well the MHSS meets characteristics associated with success and excellence in managed care. Finally, I present some cautions regarding managed care, and make recommendations for improving MHSS competitiveness in managed care.

Methods

Using a variety of traditional and electronic research tools, I identified numerous characteristics important for managed care organizations. I synthesized items from several sources into three lists: those characteristics "basic" to managed care; those required for "success" in managed care; and those associated with "excellence" in managed care. I examined the corresponding MHSS practices and traits and formed a preliminary assessment of strengths and weaknesses. Using the format in the Appendix, I then conducted a structured 45 to 60

minute telephone interview with three senior Army Medical Department (AMEDD) leaders. Those interviews were particularly useful in clarifying future directions for the MHSS. I then classified the MHSS in each area using the following mindset:

"green" meets/exceeds at least 80% of the important elements of the civilian standard

"amber" meets/exceeds at least half the important elements; or meets/exceeds at least one third of the important elements, with substantial progress in others

"red" meets less than a third of the important elements

During the interviews, I asked the senior leaders for overall "green-amber-red" opinions, but did not give them specific criteria.

Rising Health Care Costs and the Growth of Managed Care

In the early 1960's, health care costs accounted for 6% of the U.S. Gross Domestic Product (GDP). By 1970, the figure had risen to 8%. The rate of rise accelerated, with health care costs making up 14% of the GDP by 1992, and forecast to be over 18% by 2000. In contrast, health care in Germany and Canada accounts for only 8% and 9% of their respective GDPs. Health care costs place US firms at competitive disadvantage in world markets, and typically equal 45% of after tax profits.[4]

The number of physicians in the U.S. more than doubled from 1970 to 1994.[5] Over the same period, demographic changes and overbuilding led to excess hospital capacity.[6,7,8] Despite increased competition in health care, costs continued to go up.[9]

Employers increasingly turned to managed care, with its goals of accessible, quality health care at more reasonable cost.[10] By 1990, 95% of workers with employment-based insurance were in managed care plans.[11]

Moving to an all-volunteer force in the 1970s led to a much higher percentage of married servicemembers. The growing family member and retiree population overtaxed the capacity of the military Medical Treatment Facilities (MTFs).[12] As more patients used the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), its costs rose 350% between 1980 and 1990.[13] Department of Defense (DoD) repeatedly had to bail out CHAMPUS at the expense of other military programs. Transferring CHAMPUS responsibility to the individual services in 1987 gave them strong cost containment incentives.[14]

Managed Care - Definitions

A comprehensive definition of managed care is:

> ...All activities performed by payer, insurer or health provider organizations to assure delivery of appropriate and quality health care....These activities include, but are not restricted to, quality assurance, utilization management, peer review, provider selection, patient cost sharing, capitation and other provider incentive plans. Organizations involved in managed care may use one, all or any combination of these activities to improve the quality and cost effectiveness of health care....[15]

A senior medical commander gives this succinct definition: "Rationing with ethics."[16]

Managed Care "Basic" Characteristics

Basic characteristics of managed care include:[17,18]

fixed beneficiary enrollment

incentives for cost efficiencies

prospective premiums

patient copayment

quality assurance/improvement programs

telephone triage or advice nurse service

primary care emphasis

utilization management

Managed Care "Basic" Characteristics - MHSS Green

Table One shows an MHSS status rating for each of the "basic" characteristics. The MHSS meets (or will quickly meet under TriCare) the following characteristics:

Fixed beneficiary enrollment. The Defense Enrollment Eligibility Report System (DEERS) database contains over 8 million beneficiaries.[19] This defined population and the military's salaried health care providers make the MHSS resemble a closed panel health maintenance organization. However, the military did not previously link beneficiaries to a specific Medical Treatment Facility (MTF). Any beneficiary could theoretically go to any military clinic or hospital. Without accurate local enrollment, no military MTF could plan adequately

to match resources to demand. A key feature of TriCare is enrolling all beneficiaries through a specific MTF.

Incentives for cost efficiencies. The MHSS formerly provided few such incentives. It was more important to be busy than efficient: the facility that generated more visits or admissions got higher funding. Compartmentalized budgets made it advantageous (and easy) to shift costs. An MTF could "save money" by transferring complicated cases to civilian facilities under CHAMPUS; or by using the Air Evacuation system to transfer a patient to a military medical center. The MTF was not responsible for further cost in either case, regardless of overall expense to the system.

Since the individual services became responsible for CHAMPUS funds in 1987, the MHSS has had significant incentives (and success) in containing costs. In the late 1980's, Catchment Area Management (CAM) demonstrations made selected MTF commanders responsible for all military health care costs in their areas. CAM empowered Army hospitals to re-capture workload from CHAMPUS, based on business plans and cost-benefit analyses. In the early 1990's, CAM was followed by Gateway to Care (GTC). GTC empowered all MTF commanders to improve access and reduce costs through coordination of military and civilian care, and saved the Army $59 million over six years.[20,21] MTFs were authorized to redesign to meet local needs, without regard to the existing Organization and Functions regulation.[22]

As these initiatives took effect, the MHSS was able to hold CHAMPUS costs level for the past five years.[23] Army per capita increases in health care costs were well below the national rate; the ratio became more favorable each year, 1991-1994.[24]

Table Two: CHAMPUS Costs by FY

	1991	1992	1993	1994	1995
$ (millions)	$3559	$3437	$3572	$3394	$3400

Table Three: Annual Change in Per Capita Health Care Costs

	1990	1991	1992	1993	1994
National	9.51%	10.06%	11.09%	9.70%	5.72%
USAMEDCOM	9.50%	7.33%	5.42%	2.46%	0.93%

Prospective premiums and patient copayments. Civilian employers may pay the major portion of managed care premiums, but employees typically pay part, plus small user fees. The MHSS formerly charged no premiums to beneficiaries. MTF care was "free," except for a small inpatient subsistence charge. CHAMPUS had co-payments of 20% or 25%, but lower deductibles than most civilian plans. Under TriCare, retirees and their family members pay an enrollment fee. All non-active duty pay a user fee for any treatment in civilian facilities. For the average patient or family, enrollment and user fees are intended to be lower than out-of-pocket expense under traditional CHAMPUS.[25]

Quality assurance/improvement programs. A DoD quality management plan promotes consistency among the services.[26] As in the civilian sector, emphasis is shifting to improving processes and outcomes, not just investigating problem cases. External reviewers assess MHSS care as meeting or exceeding civilian quality standards.[27] In recent years, military hospitals' average scores from the Joint Commission on Accreditation of Healthcare Organizations have been above the civilian average.[28] For 1994, the most recent comparative data, 11% of military hospitals surveyed earned "accreditation with commendation;" the national rate was less than six percent.[29] The FY 93 and FY 94 data show that MTFs already have surpassed the national goals set in Healthy People 2000 for maternal-fetal outcome indicators, such as mortality, very low/low birth weight infants, and caesarean section rates.[30] Military physician training programs have won national distinction: for example, Madigan Army Medical Center's 1995 emergency medicine graduates achieved the highest class score in the nation on the Emergency Medicine In-Service Examination; Brooke Army Medical Center's ranked third. Other military programs have similarly impressive records.[31,32]

Telephone triage or advice nurse service. Formerly, nurses were considered too scarce to be used this way. While such services likely would have reduced unnecessary patient visits, that was counter to the MTF's interest under workload-driven funding. Each TriCare regional contract now calls for a telephone advice service.

Managed Care "Basic" Characteristics - MHSS Amber

Even after TriCare implementation, the MHSS may still have problems with two basic characteristics of managed care:

Primary care emphasis. Managed care calls for family practice, general pediatrics, and general internal medicine to make up 50% of physicians.[33] The military's priority has been the "critical wartime" (ie, surgical) specialties---although disease and non-battle injuries have caused the majority of casualties in all our wars. As shown in Table Four, the primary care specialties comprise only 22% of the Active Army Medical Corps, a share which has not changed over the past five years. (Including general practice would bring the figure to 31%, but general practitioners in the Army are less available to do primary care. Officially known as Field Surgeons, AOC 62B, they are typically assigned as Battalion or Brigade Surgeons, or to Medical Support Companies.) In FY 96, 40% of Army interns started in family practice, internal medicine, and pediatrics, but many will not remain in primary care. Although 80 physicians began Army internal medicine and pediatric internships, 50 also entered internal medicine and pediatric subspecialty training.[34,35] (Vector Corporation labeled 48% of military residents as primary care, but counted emergency medicine, preventive medicine, and aerospace medicine.[36] Including emergency medicine has some logic, but preventive medicine and aerospace medicine physicians have very restricted practices.)

Physician extenders figure prominently in civilian managed care, but not in Army family member/retiree care. There are 449 Active Army Physician Assistants in FY 96, down from 558 in FY 91;[37] they are assigned almost exclusively to line units. Nurse practitioners and nurse clinicians are rare in the Army.

Although the number of primary care providers relative to population is more important than the ratio among specialties,[38] it is clear that the specialty distribution of active duty military physicians is not structured for managed care. "We have to resource the readiness, deployment, and training missions out of the active force; civilian hires or contracts can give us the added primary care we need."[39]

Utilization management. The features of MHSS utilization management are listed below. This major transition will lag behind TriCare implementation.[40] Outpatient case management to reduce admissions is a key current weakness, as discussed further under "excellence" characteristics.

Current Utilization Management	Planned Utilization Management
Inpatient Focus	Outpatient - Reduce Admits
Review of Single Events	Review of Patterns
Review of Individuals	Review of Populations
Precertification/Concurrent	Retrospective
Appropriateness of Care	Outcomes/Results
Approval/Denial	Process Improvement
Punitive	Incentives

Managed Care "Success" Characteristics

Management consultants and medical executives identify several characteristics for success in managed care:[41,42,43]

critical beneficiary mass

governance structure

- physician leadership
- physician equity

benchmark comparisons and reporting

capital

patient recognition

management skills

- externally oriented, long-term perspective
- financial analysis and resource management
- contract negotiation and administration

real time management information systems

right-sizing or organizational engineering

flexibility and nimbleness

rapid feedback on performance

Managed Care "Success" Characteristics - MHSS Green

Table Five shows MHSS status for managed care "success" characteristics. The MHSS earns a high rating in three of ten:

Critical mass of beneficiaries. Civilian plans debate the minimum number required,[44] but 8 million military beneficiaries are clearly enough.

Governance structure. The MHSS is ahead of the civilian sector in *physician leadership.* Civilian providers, hospitals,

and payors have been relatively independent from each other. Military providers, facilities, and funding are all part of the same system, enhancing coordination of effort. The military is "way ahead in collaborative or interdisciplinary care...our civilian sister institutions can't get doctors to participate."[45] The MHSS formalizes physicians' roles as leaders. While some object to physicians as "captains of the health care ship,"[46] others urge greater physician empowerment in leadership roles.[47] Unquestionably, the role of physician leadership in the MHSS is changing. Physicians no longer command all hospitals and clinics in the Air Force and Navy. In the Army, certain AMEDD command positions are also about to become "branch immaterial."[48] The Surgeon General's proposal to do that was disapproved by the Army Chief of Staff in November 1993, but "the Surgeon General has (now) convinced the Four Stars to buy off on it."[49] Still, the clear military hierarchy will maintain the MHSS advantage over the civilian sector in directing physicians.

In civilian health organizations, *physician equity* or investment is urged to make them stakeholders in managed care.[50] In a literal sense, that does not apply to the MHSS, but physicians must "buy into" managed care for TriCare to succeed.[51]

Benchmark comparisons and reporting. Employers and other purchasers of health care want criteria for judging health plan performance, and value received for premiums.[52] To meet that demand, the National Committee for Quality Assurance developed the Health Plan Employer Data and Information Set (HEDIS).[53] The

Joint Commission on the Accreditation of Healthcare Organizations has a competing managed care accreditation process. HEDIS is a useful beginning, but not sufficient.[54] The MHSS has developed a superior "report card" that covers preventive health screening and wellness, health care utilization and access, patient satisfaction, and awareness of health benefits.[55] Data on each MTF can be broken out of the worldwide annual survey.

Managed Care "Success" Characteristics - MHSS Amber

The MHSS falls somewhat short on five of the ten "success" characteristics:

Capital. This should be a non-issue for a large Federal entity. However, the MHSS cannot raise capital, and is completely dependent on the appropriations and budget process for funds. MHSS funding is frequently delayed, reduced, or eliminated by Congress or DoD. The Defense Medical Advisory Council projects a shortfall of $900 million for FY 1997 alone, and up to $2.2 billion through 2001.[56]

Patient recognition. Managed care must focus on patients and win their loyalty and support. Patient satisfaction with the MHSS is an indirect measure of that. In an FY 95 survey, over 80% of retired/family member beneficiaries were "satisfied or very satisfied" with the military direct care system; the figure was just under 80% for family members of active duty. However, in seven out of ten topics surveyed, beneficiaries who used only the military system were less satisfied than those who used only civilian care.[57] Beneficiaries who used both civilian and

military health care were less satisfied with the military in every aspect except cost.[58] The proposal to enroll military beneficiaries in the Federal Employees Health Benefits Program is further evidence that the MHSS is losing patients' loyalty.[59]

Management skills. Because the MHSS is a separate, closed system, military medical management historically has not been *externally oriented.* "That is changing; Total Quality Management and customer orientation are becoming more the norm."[60] However, the military practice of rotating hospital commanders every two or three years is at odds with developing *long-term perspective.*

The typical military hospital's leadership is behind its civilian counterparts in *financial analysis, resource management,* and *contract negotiation/administration* skills. "We now require our hospitals to develop business plans, but we haven't had training programs to build business skills. We make do by sending people to a few short courses....We have a handful of analysts at each facility; the civilian contractors have dozens...they can run circles around us."[61]

Management information systems. These must give real time data on costs and utilization.[62] MHSS "network informatics are way ahead of the civilian sector, but still are not fast enough to support 'make-buy' decisions."[63] The Composite Health Care System (CHCS), the integrated clinical computer system at the MTF level, pre-dates the MHSS managed care emphasis.[64] An Ambulatory Data System (ADS) will be added in 1996, giving MTFs the ability to enter diagnostic codes for outpatient visits. A new Managed

Care Program will support the enrollment, preferred provider network, and health care finder functions of TriCare. However, even with that, CHCS will not provide the clinical information or cost accounting needed for TriCare. A Corporate Executive Information System (CEIS) is being developed for "near-term" DoD-wide implementation. CEIS will merge some existing systems, and provide new capability, including episode-of-illness cost, outcomes measurement, benchmarking, population-based utilization management, and provider/productivity monitoring.[65]

Right-sizing or organizational engineering. Balancing cost and service in "make or buy" decisions is key to market survival.[66] The MHSS has demonstrated its ability to make tough choices to meet budget. The Army alone reduced hospital beds from 13,958 in 1990, to 9776 by 1993, with 8029 projected in 2000.[67] Between 1988 and 1997, the MHSS will have closed 58 hospitals (35% of its total).[68] But while the MHSS has "the right people to make 'make or buy' decisions, the bureaucracy doesn't (always) permit it."[69] The MHSS also "hasn't decided whether to 'make' primary care and 'buy' specialty care, or vice versa; or how physician extenders fit the overall picture."[70]

Managed Care "Success" Characteristics - MHSS Red

The MHSS has major problems with two characteristics needed for success in the rapidly changing health care market:

Flexibility and nimbleness. The MHSS leadership may have the vision, but is constrained by Federal regulations and bureaucracy. "While waiting for the system to buy our machines,

we spent millions for outside CT and MRI services."[71] Contrast a former Army hospital administrator now in civilian health management: "When he makes a business proposal, senior management only asks, 'What market advantage do we gain? How much will it cost?' He can have approved architectural drawings six weeks after a proposal. We can't get inside that curve."[72]

Rapid feedback on performance. The MHSS does not "...have systems in place to make timely enough decisions; we watch trends too long."[73] Problems include: "Our metrics haven't been the ones that really count.... We still don't have an ambulatory coding system, or real time CHAMPUS data. By the time we get quarterly or annual reports from OCHAMPUS, it is too late. Our workload accounting tools are unrealistic---they portray a 40-hour week, not actual effort. We can't calculate accurate per patient costs."[74]

Managed Care "Excellence" Characteristics

The Health Care Financing Administration has identified twelve best practices of leading managed care organizations.[75]

continuous quality improvement

performance measurement

screening and prevention

elder care coordination

provider billing communication

protocol application

outcomes measurement

case management

technology assessment

case mix severity adjustment

physician profiling

artificial intelligence medical reviews

Managed Care "Excellence" Characteristics - MHSS Green

Table Six gives an MHSS rating in each area. MHSS programs compare favorably to five of twelve best practices. These are examples of best practices, not industry-wide standards; no civilian organization excels in every field. Similarly, a high MHSS rating may reflect an individual MTF practice, not a system-wide program.

Continuous quality improvement. Harvard Community Health Plan was highlighted for a plan that includes organizational vision, success measures for strategic objectives, and five-year annual targets. HealthAmerica of Pittsburgh was recognized for using Total Quality Management to improve member satisfaction to 94%.[76] The MHSS leadership has given a clear vision and strategic plan.[77] A few MHSS catchment areas have achieved 90% or better beneficiary satisfaction.[78]

Performance measurement. United Healthcare Corporation was singled out for developing a "report card" on health plan performance in consumer satisfaction, quality of care, operating efficiency, and cost reduction---the HEDIS described above.[79] DoD's more extensive annual survey was already described. DoD uses a "dashboard" of quality indicators: accreditation, licensure, and board certification; beneficiary satisfaction;

hospital utilization rate; and preventable admissions.[80] DoD's "report card" also addresses access, preventive health measures, women's health issues, and adverse clinical events.[81]

Screening and prevention. Cigna HealthCare of Arizona was highlighted for a Health Evaluation and Lifestyle Planning (HELP) program. Cigna has developed guidelines for a variety of screening tests and procedures, and offers Health education to influence lifestyle risks. One reported benefit has been a shift in breast cancer detection to earlier, more favorable stages.[82] (Such a shift is happening nationwide; it is not clear from the report how Cigna's change compares to the national trend.) The HELP program is similar to the Army's Health Risk Assessment Program (HRAP). The screening guidelines are equivalent to those in the DoD "report card" (above).

Elder care coordination. A HealthPartners Medicare HMO lowered costs by judicious use of long-term services to avert acute hospitalization.[83] The MHSS has similar programs: Walter Reed Army Medical Center, with Distaff Hall and the Soldiers' and Airmen's Home; Brooke Army Medical Center, with USAA Towers; and Wilford Hall USAF Medical Center, with Air Force Village.[84]

Provider billing communication. United HealthCare Corporation uses an electronic data interchange to improve claims processing, and streamline eligibility and claim status inquiries.[85] Such billing innovations would have had no place in the "old" MHSS, but at Walter Reed today, "the third party collection program is linked directly to Blue Cross, and brought

in $12 million last year." The Prime Vendor program also uses electronic data interchange for all orders, "reducing costs by $6-8 million last year, with major savings in interest and late penalties."[86]

Managed Care "Excellence" Characteristics - MHSS Amber

MHSS programs compare moderately well with the best civilian practices cited in four other areas:

Protocol application. HealthAmerica of Pittsburgh was praised for developing coronary artery bypass graft and diabetes management guidelines for prospective provider education and retrospective feedback. HealthPartners made the list for developing ambulatory care guidelines. They cover 13 common clinical areas where changed physician behavior could yield substantial improvements in outcomes or cost.[87] Protocol application in MHSS ambulatory care dates back at least to the late 1970's (personal experience, Madigan Army Medical Center, Family Practice Residency), but emphasized standard of care, not outcome or cost. At Walter Reed, current protocol emphasis is on "high risk/high cost pathways, such as bone marrow, liver and kidney transplants; angioplasty; and oncology."[88] Ambulatory guidelines "are coming."[89]

Outcomes measurement. Blue Cross-Blue Shield of Minnesota assigns acute hospital admissions to an "Illness Outcome Group," based on risk for adverse outcome. That is factored into reimbursement, so that hospital return is more consistent with risk, and quality (reduced adverse outcomes) is rewarded.

Harvard Community Health Plan conducts 40-50 quality and outcomes measurement studies each year. Examples included functional status after deliveries of various types, missed work and functional limitations in asthma, symptom relief after urinary incontinence procedures, and functional status after psychiatric hospitalization.[90]

MHSS outcome studies focus mostly on inpatient services. For example, Walter Reed looks at return to function after pulmonary, urology, and psychiatry admissions.[91] "Thoracic surgeons are the most studied group...at Madigan, we are buying into the Society for Thoracic Surgery data base...we'll be able to compare ourselves with nation-wide outcomes."[92]

Case management. Blue Cross-Blue Shield of the Rochester Area (BCBSRA) was named for using RNs with community health experience to help coordinate care of high cost/complicated patients, BCBSRA has realized approximately $8 million in annual savings. There are nine case managers for 700,000 patients. Each has 40 to 150 patients, depending on complexity. (If the average load is 100, that is only 900 patients. Since the program targets asthma, chronic obstructive pulmonary disease, and other relatively common conditions, that low figure suggests that BCBSRA screens prospective members and only enrolls the healthy.) The program began with three types of cases, and had expanded to eleven by 1993. Categories added must have a six to one projected savings to cost ratio.[93]

Military case management programs are "in their infancy...we should have a battalion of case managers, but only have a handful."[94] "The Exceptional Family Member Program (EFMP) case management of the many handicapped children around Madigan may be our best example....Case management is clearly the way to go; the TriCare contractor doubled his case management staff at Madigan's insistence."[95] Other efforts have focused on asthma and diabetes. Placing Army asthma case management in EFMP unfortunately means it does not reach active duty patients, or retirees and their family members.[96]

Technology assessment. Harvard Community Health Plan and Prudential were cited for programs to make objective coverage decisions on new technologies. Most technologies end up being covered, but with specific guidelines. Some, such as laser treatment for refractive error, get classified as "appropriate but not covered."[97] The MHSS does not bill by procedure, so has no profit incentive to adopt new technologies of questionable added value. "Technology assessment is one of the missions of the Medical Research Materiel Command, at Fort Detrick, MD. Their emphasis has been high dollar items, such as radiology and imaging technology, but they look at other areas, too."[98]

TeleMedicine has been called key to Medical Force XXI,[99] but its value added is controversial.[100] One senior leader says, "The military may be the only ones doing an objective assessment of TeleMedicine."[101] Another counters, "It still hasn't gotten

assessed...neither did MDIS (filmless radiology system) at Madigan (Army Medical Center), not even after the fact."[102]

Managed Care "Excellence" Characteristics - MHSS Red

The MHSS is not up with leading civilian managed care organizations in three areas:

Case mix severity adjustment. Blue Cross-Blue Shield of the Rochester Area was also cited for a program that identifies prevalence of various diseases in the population served. Blue Cross can then project costs more accurately, and identify variations in resource utilization due to practice style.[103] The MHSS does not now have comparable ability, but "will be able to track that with the Ambulatory Data System."[104] In an indirect approach, the military already "adjusts funding based on ratio of active duty vs non-active duty, and older vs younger."[105]

Physician profiling. Blue Cross-Blue Shield of Minnesota used this to build a Select Cardiac Network with the lowest complication and mortality rates in the community. Harvard Community Health Plan developed software to examine resource utilization by physicians, adjusted for patient complexity.[106]

MHSS physician profiling is limited primarily to reportable complications. Each MTF can also profile individual prescribing, a potentially powerful feedback tool: "The first month after holding a 'Stewardship Day' (on prescribing costs) with our oncologists, we realized $70,000 in savings."[107] At the MHSS institutional level, the Civilian External Peer Review Program developed Clinical Practice Profiles on 97 MTFs providing

obstetric care, identifying those that excelled in patient outcome and resource use. If all 97 MTFs performed as well, birth outcomes would improve, and savings could be $37 million.[108]

Artificial intelligence medical review. Using "Adjudipro" software to compare claims against known appropriate care, United HealthCare Corporation processes 90-95% of physician bills without human intervention. "Adjudipro" can do reviews that previously would have required at least a nurse.[109] The MHSS has no comparable capability, but could potentially use it to monitor contractor medical services, or do quality improvement reviews.

Cautions on Managed Care: Common Operational Problems

A number of operational problems are common in civilian managed care plans:[110]

undercapitalization

under/overpricing

unrealistic projections (overprojecting enrollment, underprojecting medical expenses)

uncontrolled growth

improper accounting (ie, expenses incurred but not reported, reconciliation of membership changes and account receivable)

failure to use underwriting criteria

failure of management to understand reports

failure to track medical costs and utilization correctly

failure to educate and re-educate providers

failure to deal with problem providers

Capital and ***cost tracking*** have already been discussed. ***Underpricing*** is an issue: "The TriCare mandate from Congress is to save 10% in appropriated military health care costs. You can't increase access and decrease cost. Increased cost sharing would be the way to hold the line on appropriated funds, but co-payments are supposed to be cost neutral for beneficiaries."[111]

Underprojecting medical expenses can happen because patient populations are not fixed, despite TriCare enrollment. "We can't build a fence around each MTF. Retirees still follow the sun... we don't yet have a system for transfer of funds between MTFs."[112]

With down-sizing, concern over ***uncontrolled growth*** seems laughable. However, "since the AMEDD has gone down 31%, while our beneficiary population has only gone down 11%, that has the same effect as uncontrolled growth."[113]

Lack of ***underwriting criteria*** has obvious implications for cost projections. Active duty are medically screened before entry, but there is no prospective screening of family members or retirees. "Some screening, at least a problem list review, will be part of TriCare enrollment."[114]

The uniformed services largely train their clinicians, an advantage in ***educating and re-educating providers***. "We have the potential to change our culture through our graduate medical education."[115] But the managed care mindset "hasn't necessarily gotten down to the providers...doctors still want to use the newest, most expensive drugs." The MHSS is "the best in the US at ***dealing with problem providers*** when standard of care is

involved, but doesn't do nearly as well with cost ineffective practice."[116]

Cautions on Managed Care: Cost Expectations

The "733 Study" reaffirmed that the MHSS delivers care at lower cost than the civilian sector.[117] Expanding the MHSS would be the most cost effective way to meet the needs of military beneficiaries. Instead, the MHSS is being downsized.

The Congressional Budget Office has projected that TriCare will cost $300 to $500 million more than the previous combined MTF and CHAMPUS budgets.[118] Initial TriCare experience in the Northwest raises concern: "CHAMPUS costs for the area had run about $80 million per year. The TriCare contractor bid $90 million per year. The first year, there was a $2 or $3 million overrun."[119] Another view is: "Congress said to reduce costs compared to historical CHAMPUS. The final contractor bid was below that, but above the tightly managed Gateway to Care level. Actual first year performance was within about two percent of budget...we're still learning."[120]

Managed care may not produce sustained cost reductions. Managed care savings thus far have mostly been through reducing hospital bed days. Hospital costs are often calculated at a constant per diem. Cutting the least intense ("cheapest") days does not reduce fixed system costs.[121] The demand for health care is relatively price insensitive. The aging population, rising wages, and new technology will inexorably increase health costs, despite shorter lengths of stay.[122]

The counter-argument is that nonscientific variation in clinical practice and paucity of information on the outcomes of care are major cost drivers in US medicine.[123] Unproven, unnecessary, or harmful care adds to medical costs. Managed care application of consistent, proven standards can both improve quality and reduce unnecessary expenditures.[124]

Conclusions

The MHSS fully meets six out of eight basic characteristics of a managed care organization. It fully meets or has made substantial progress toward eight of ten characteristics associated with success in managed care. Key problem areas include primary care physician staffing, and market response flexibility and nimbleness.

The MHSS matches or surpasses five of twelve practices identified with excellence in civilian managed care, and shows significant progress toward another four.

The MHSS can deliver basic managed care. The degree of its success and potential for excellence depend partly on external reform and resourcing, and partly on emulation of leading MTFs' practices throughout the system.

TriCare will reduce costs relative to traditional CHAMPUS, and slow the rise in health care costs; but will not yield sustained absolute cost reductions.

Recommendations to Improve MHSS Competitiveness in Managed Care

Set and pursue clear primary care staffing goals (active duty, civilian hire, and contract).

Seek exemption from manpower ceilings that force patients into more expensive civilian care.

Propose specific reforms to streamline contracting, military construction, automation acquisition, and other areas hampered by external regulation and bureaucracy.

Link TriCare premiums to benefit cost, not artificial limits.

Provide for transfer of capitation funds when beneficiaries enrolled at one MTF receive care at another.

Pursue a customer-oriented, patient focused approach to increase the loyalty and support of beneficiaries.

Seek Medicare subvention to re-enfranchise elderly beneficiaries.

Increase long-term schooling for medical managers.

Analyze the best OB Clinical Practice Profiles already identified and disseminate the lessons throughout the system; similarly identify and disseminate other best practices.

Apply case management on clinical basis, not by beneficiary class.

Table One

MHSS Status - Managed Care "Basic" Characteristics

	green	amber	red
fixed beneficiary enrollment	X**	X*	
incentives for cost efficiencies	X		
quality assurance/improvement	X		
prospective premiums	X**		X*
patient copayment	X**	X*	
telephone triage/advice service	X**		X*
primary care emphasis		X	
utilization management		X	

* pre-TriCare ** TriCare

Table Four

Primary Care Physicians (Army)

	Staff Physicians		Interns Starting Training	
	FY 92	FY 96	FY 90	FY 96
Family Practice	325 (9%)	325 (10%)	53 (13%)	43 (14%)
Internal Medicine	230 (6%)	192 (6%)	68 (17%)	56 (18%)
Pediatrics	252 (7%)	198 (6%)	30 (7%)	24 (8%)
General Practice	336 (9%)	289 (9%)	n/a	n/a
Total All Specialties	3609	3116	401	311

Table Five

MHSS Status - Managed Care "Success" Characteristics

	green	amber	red
critical beneficiary mass	X		
governance structure	X		
benchmark comparison and reporting	X		
capital		X	
right-sizing		X	
patient recognition		X	
management information systems		X	
management skills		X	
flexibility and nimbleness			X
rapid feedback on performance			X

Table Six

MHSS Status - Managed Care "Excellence" Characteristics

	green	amber	red
continuous quality improvement	X		
performance measurement	X		
screening and prevention	X		
elder care coordination	X		
provider billing communication	X		
protocol application		X	
outcomes measurement		X	
case management		X	
technology assessment		X	
case mix severity adjustment			X
physician profiling			X
artificial intel medical review			X

NOTE: A "green" rating indicates comparable practices in one or more MHSS facilities, not necessarily system-wide.

APPENDIX

INTERVIEW FORMAT

1. Military health care is transitioning to managed care under TriCare. In some ways, that requires the military to compete with the civilian sector in providing peacetime care.

Questions: Do the military medical departments enjoy any intrinsic advantages relative to the civilian sector? What about relative disadvantages?

2. Managed care generally assumes a strong primary care base, with 50% of the total physician workforce in family practice, general pediatrics, or general internal medicine.

Questions: How is the military (especially the AMEDD) tailoring its uniformed physician force to emphasize primary care? How has its specialty distribution changed in the past five years?

3. Congress mandated that TriCare improve military health care access without increasing overall costs. However, the winning bid for the TriCare contract for the Washington-Oregon region was reportedly $110 million over projections.

Questions: Will TriCare deliver care within projected costs? Does the discrepancy between projection and bid reflect a fundamental problem in the military's health care planning?

4. Peter Bohlman, a medical management consultant writing in American Medical News, has identified nine (9) characteristics of successful managed care organizations:

patient recognition

capital

governance structure

physician leadership

externally oriented management

rapid feedback on performance

benchmark comparisons and reporting

management information systems able to track costs and utilization

right-sizing or organizational engineering that balances cost and service in "make or buy" decisions.

Questions: How would you rate military medicine in those areas? What areas are particular strengths for military medicine? Where is improvement most needed? Could you assign a "green-amber-red" rating in each area?

5. Peter Kongstvedt, MD, author of The Managed Health Care Handbook, discusses eleven (11) common operational problems in managed care plans:

undercapitalization

under/overpricing

unrealistic projections (overprojecting enrollment, underprojecting medical expenses)

uncontrolled growth

improper accounting (ie, expenses incurred but not reported; reconciliation of membership changes and account receivable)

failure to use underwriting criteria

failure of management to understand reports

failure to track medical costs and utilization correctly

failure to educate and re-educate providers

failure to deal with problem providers

Questions: Is military medicine at risk in any of these areas? Is military medicine particularly strong in any of them?

6. The Health Care Financing Administration Office of Managed Care has published a survey that identifies twelve (12) marks of excellence in managed care organizations:

case management

case mix severity adjustment

continuous quality improvement

performance measurement (the Healthplan Employer Data and Information Set, or HEDIS)

physician profiling (expected/actual outcomes, expected/actual health care expenses)

protocol application (clinical practice guidelines to improve care in high risk/high cost or high volume/low cost situations)

electronic data interchange (to streamline claims processing)

outcomes measurement

screening and prevention

special population care coordination (ie, the elderly)

technology assessment (to assess the added value of expensive new modalities)

clinic-based utilization management

Questions: In which areas is military taking or near the lead? Where must military medicine improve in order to excel?

7. Responsive automation systems are essential for health care organizations today.

Questions: Do the Composite Healthcare Computer System (CHCS) and Defense Eligibility Enrollment Reporting System (DEERS) provide the tools the military medical departments need to manage

care? What will the Ambulatory Data System (ADS) add? What else is needed? What systems are coming on line to meet that need?

8. Some fear that the Bid Price Adjustment process will trigger a downward spiral for the military medical departments; that declining MTF workload (a potential effect of managed care) will cause them to lose resources to the TriCare contractor (whose workload may not have increased); that the shift of resources will continue year after year until the MTFs are nonviable.

Questions: Is the Bid Price Adjustment process a threat to the existence of the peacetime military health care system? Are changes in the process needed to keep the uniformed facilities and contractors on a level playing field?

9. In five or six years, military medicine has gone from traditional structure and practices, through Gateway to Care, to TriCare.

Questions: How will TriCare change over the next 5-10 years? What do you see coming next?

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